What is claimed is:

1. A method for cooling a room configured to house a plurality of computer systems, said method comprising:

providing a heat exchanger unit configured to receive air from said room and to deliver air to said room;

supplying said heat exchanger unit with cooling fluid, wherein said cooling fluid is operable to cool said received air in said heat exchanger unit;

sensing temperatures at one or more locations in said room;

controlling at least one of the temperature of said cooling fluid and said air delivery to said room in response to said sensed temperatures at said one or more locations.

2. The method according to claim 1, further comprising:

providing a cooling device configured to manipulate the temperature of said cooling fluid, wherein said step of controlling at least one of a temperature of said cooling fluid and said air delivery to said room comprises varying an output of said cooling device to control the temperature of said cooling fluid.

3. The method according to claim 2, wherein said cooling device comprises a refrigeration loop having a variable capacity compressor and a refrigerant, and wherein said step of controlling the temperature of said cooling fluid comprises controlling the temperature of said refrigerant through operation of said variable capacity compressor.

4. The method according to claim 1, wherein said heat exchanger unit comprises at least one fan configured to effectuate delivery of the air, and wherein said step of controlling at least one of a temperature of said cooling fluid and said air delivery to said room comprises varying an output of said fan to control the delivery of air to the room.

5. The method according to claim 1, further comprising:

determining whether the sensed temperatures at one or more locations in said room are within a predetermined range.

6. The method according to claim 5, further comprising:

determining whether the sensed temperatures is at least one of less than and equal to a minimum set point temperature in response to said sensed temperatures at one or more locations in said room being outside of said predetermined range.

7. The method according to claim 6, wherein said controlling step comprises decreasing said air delivery to said room in response to said sensed temperatures at said one or more locations being at least one of less than and equal to a minimum set point temperature.

8. The method according to claim 6, wherein said controlling step comprises increasing said air delivery to said room in response to said sensed temperatures being above said minimum set point temperature and outside of said predetermined range.

9. The method according to claim 5, further comprising:

varying the cooling fluid temperature in response to the sensed temperatures at one or more locations in said room being outside of said predetermined range.

10. The method according to claim 9, further comprising:

increasing said cooling fluid temperature in response to a sum of the sensed temperatures at one or more locations being below said predetermined range.

11. The method according to claim 9, further comprising:

decreasing said cooling fluid temperature in response to a sum of the sensed temperatures at one or more locations being above said predetermined range.

12. The method according to claim 1, further comprising:

performing a numerical modeling of a temperature distribution and flow characteristics of air within the room; and

manipulating said cooling system in response to said numerical modeling.

13. The method according to claim 12, further comprising:

implementing said numerical modeling to correlate at least two of temperature, velocity and pressure of said cooling fluid and power draw of said racks within said data center to thereby infer a thermal condition throughout said room, wherein said controlling step further comprises manipulating said cooling system in response to said inferred thermal condition.

14. The method according to claim 1, wherein said step of sensing temperatures at one or more locations in said room comprises sensing said temperatures with a mobile environmental condition sensing device.

15. The method according to claim 1, wherein said step of sensing temperatures at one or more locations in said room comprises determining said temperatures according to anticipated heat loads of one or more of said plurality of computer systems.

16. The method according to claim 1, further comprising:

manipulating the workload on the plurality of computer systems to optimize energy efficiency in cooling said plurality of computer systems.

17. The method according to claim 1, wherein said step of controlling at least one of the temperature of said cooling fluid and said air delivery to said room in response to said sensed temperatures at said one or more locations comprises substantially ceasing air delivery and cooling fluid delivery in response to said sensed temperatures being below a predetermined set point temperature.

18. A system for cooling a room containing one or more computer systems, said system comprising:

a heat exchanger unit configured to receive cooling fluid through a cooling fluid line and to receive air, wherein said air may be cooled through heat transfer with said cooling fluid;

said heat exchanger unit having at least one fan configured to cause air to flow out of the heat exchanger unit;

a heat exchanger controller operable to control a supply of said cooling fluid to said heat exchanger unit and operable to control the speed of the at least one fan;

a device for cooling said cooling fluid; and

a cooling device controller configured to operate the device for cooling to vary the temperature of said cooling fluid.

19. The system according to claim 18, further comprising one or more temperature sensors, wherein said heat exchanger controller is configured to receive environmental condition information from said one or more temperature sensors.

20. The system according to claim 19, wherein said temperature sensor comprises at least one of a thermocouple and a mobile environmental condition sensing device.

21. The system according to claim 18, wherein said computer systems are housed in a plurality of racks, and wherein a plurality of heat exchanger units are positioned at various locations in said room to supply air flow to said plurality of racks in a substantially independent manner.

22. The system according to claim 21, further comprising:

one or more pumps configured to control cooling fluid delivery to one or more of said plurality of heat exchanger units, wherein said heat exchanger controller is operable to control said one or more pumps.

23. The system according to claim 18, further comprising:

a valve configured to meter the flow of cooling fluid through said heat exchanger positioned along said cooling fluid line generally upstream of said heat exchanger unit, wherein said heat exchanger controller is operable to control the mass flow rate of said cooling fluid through said valve.

24. The system according to claim 18, wherein said cooling device comprises at least one of a variable capacity compressor, a heat exchanger, a chiller, and a cooling device controller

configured to control said at least one of said variable capacity compressor, said heat exchanger, and said chiller.

25. The system according to claim 24, wherein said cooling device controller is configured to communicate with said heat exchanger controller.

26. The system according to claim 25, wherein said communication between the cooling device controller and the heat exchanger controller includes communication of information pertaining to the level of operation of said one or more heat exchanger units, and wherein said cooling device controller is configured to operate said at least one of the variable capacity compressor, heat exchanger, and chiller in response to said information.

27. The system according to claim 25, wherein said communication comprises at least one of temperature measurements and heat exchanger unit operations.

28. The system according to claim 18, wherein said heat exchanger unit is supported from a ceiling of said room.

29. The system according to claim 18, further comprising:

a connecting line between a supply portion of said cooling fluid line and a return portion of said cooling fluid line; and

a valve configured to meter the flow of cooling fluid through said connecting line, wherein said heat exchanger controller is operable to control the flow of said cooling fluid through said valve.

30. A system for cooling computer systems housed in one or more racks, said racks being maintained in a room, said system comprising:

means for cooling air including means for receiving cooling fluid;

means for delivering cooled air to said computer systems;

means for measuring temperatures at one or more locations in said room;

means for controlling delivery of said cooled air in response to the temperature measurements; and

means for controlling the temperature of said cooling fluid.

31. The system according to claim 30, further comprising:

means for controlling delivery of cooling fluid through said cooling means.